

Applicant : Gerardo Castillo et al.  
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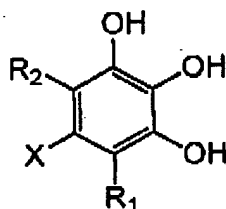
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 (712576-999002)

Amendments to the Claims:

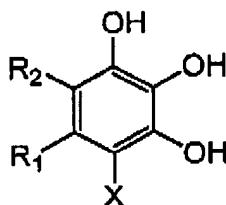
This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

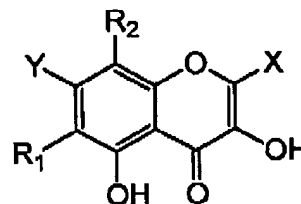
1. (Currently amended) A method of treating a disease selected from amyloidosis associated with Alzheimer's disease and islet amyloid fibrils type II diabetes, in a mammal suffering therefrom, comprising administration to the mammal of a therapeutically effective amount of an isolated pure compound selected from the group consisting of the compounds of formula A, formula B, formula C, formula D, and formula E:



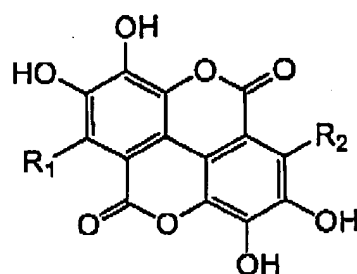
Formula A



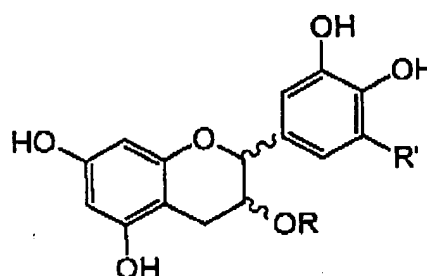
Formula B



Formula C



Formula D



Formula E

where:

R is selected from the group consisting of hydrogen, 2,3-dihydroxybenzoyl, 3,4-dihydroxybenzoyl, 2,3,4-trihydroxybenzoyl, and 3,4,5-trihydroxybenzoyl;

R' is hydrogen or OH;

R<sub>1</sub> and R<sub>2</sub> are independently selected from hydrogen and non-interfering substituents;

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X is selected from hydrogen and the group consisting of

- (a) hydroxy, amino, C<sub>1-6</sub> alkylamino, di(C<sub>1-6</sub> alkyl)amino, and cycloamino,
- (b) C<sub>1-22</sub> alkyl, C<sub>1-22</sub> alkoxy, C<sub>1-22</sub> alkylthio, and C<sub>1-22</sub> alkylcarboxyl, each optionally substituted with 1 to 5 moieties selected from the group consisting of halogen, hydroxy, mercapto, amino, nitro, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkylthio, and C<sub>1-6</sub> alkylcarboxyl,
- (c) aromatic and heteroaromatic groups substituted with 2 or 3 adjacent hydroxy groups, and optionally substituted with 1 to 5 non-interfering substituents,
- (d) sugars, optionally substituted with one or more anionic groups selected from sulfate, phosphate, phosphonate, carboxylate, and sulfonate groups,
- (e) peptides and peptide derivatives, and
- (f) -C(O)R<sub>3</sub> and -C(O)OR<sub>3</sub>, where R<sub>3</sub> is selected from the group consisting of (a) through (e) above; and

Y is hydrogen, hydroxy, C<sub>1-6</sub> alkoxy, benzyloxy, where the phenyl group is optionally substituted with 1 to 3 substituents selected from halo and C<sub>1-6</sub> alkyl, or -OSO<sub>2</sub>R<sub>4</sub>, where R<sub>4</sub> is C<sub>1-6</sub> alkyl or phenyl optionally substituted with 1 to 3 substituents selected from halo and C<sub>1-6</sub> alkyl; and the group of compounds consisting of acacetin, actinorhodine, alizarin, alizarin blue, alizarin orange, alizarinsulfonic acid, alkannin, anthragallol, anthralin, anthrarobin, anthrarufin, apigenin, apigenin, apigetrin, apiose, baicalein, baptigenin, 1,2,4-benzenetriol, bostrycoidin, carbidopa, carminic acid, carubicin, cellobiose, centaurein, chloranilic acid, chondrosine, chromotrope 2B, chromotropic acid, chrysamminic acid, chrysarobin, chrysin, chrysophanic acid, cichoriin, citrazinic acid, citromyctin, collinomycin, curvularin, cyanidin, cyanidin 3-glucoside, cyanidin 3-rhamnoglucoside, cyanidin 3,5-diglucoside, cyanidin 3-sophoroside, daphnetin, datiscetin, daunorubicin, delphinidin, deoxyepinephrine, diosmetin, diosmin, dioxethedrine, dopa, dopamine, doxorubicin, droxidopa, echinochrome A, embelin, emodin, ergoflavin, eriodictyol, esculetin, fenoldopam, fomecin A, fomecin B, fraxetin, fraxin, fredericamycin A, fumigatin, fusarubin, fuscine, fustin, galangin, gallein, gallocyanine, gardenin A, gardenin B, gardenin C, gardenin D, gardenin E, genistein, gentisin, granaticin, guamecycline, hematein, hydroxysophorobioside, hydroxysophoricoside, icariin, isoquercitrin, kaempferol, kermesic acid, laccic acid A, laccic acid B, laccic acid C, laccic acid D, leucocyanidin, luteolin, maclurin, menogaril, methylenedigalllic acid, morin, oosporein, phenicin, phloroglucide, puberulic acid,

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puberulonic acid, purpurin, purpurogallin, quercetagenin, quercimritrin, quinalizarin, quinic acid, resistomycin, rhamnetin, rhein, rhodizonic acid, rhodomycin A, rhodomycin B, robinin, ruberythric acid, rufigallol, rutin, scutellarein, tannic acid, tetroquinone, tiron, troxerutin, and tunichrome B1, but excluding pyrogallol, and the pharmaceutically acceptable salts thereof.

2. (Previously presented) The method of Claim 1 where only one active ingredient compound is administered.
3. (Previously presented) The method of Claim 1 where the mammal is a human.
4. (Currently amended) The method of Claim 3 where the amyloidosis disease is type II diabetes.
5. (Currently amended) The method of Claim 1, where the amyloidosis disease is Alzheimer's disease.
- 6-16. (Cancelled)
17. (Previously presented) The method of Claim 1 where R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of hydrogen; C<sub>1-6</sub> alkyl, C<sub>1-6</sub> alkoxy, and C<sub>1-6</sub> alkylthio, in each of which the alkyl group is optionally substituted with 1 to 5 halogen atoms; and halo.
18. (Previously presented) The method of Claim 1 where X is selected from hydrogen and the group consisting of
  - (a) hydroxy, amino, C<sub>1-6</sub> alkylamino, di(C<sub>1-6</sub> alkyl)amino, and cycloamino,
  - (b) C<sub>1-22</sub> alkyl, C<sub>1-22</sub> alkoxy, C<sub>1-22</sub> alkylthio, and C<sub>1-22</sub> alkylcarboxyl, each optionally substituted with 1 to 5 moieties selected from the group consisting of halogen, hydroxy, mercapto, amino, nitro, C<sub>1-6</sub> alkoxy, C<sub>1-6</sub> alkylthio, and C<sub>1-6</sub> alkylcarboxyl,
  - (c) aromatic and heteroaromatic groups substituted with 2 or 3 adjacent hydroxy groups, and optionally substituted with 1 to 5 non-interfering substituents, and
  - (d) -C(O)R<sub>3</sub> and -C(O)OR<sub>3</sub>, where R<sub>3</sub> is selected from the group consisting of (a) through (c) above.
19. (Previously presented) The method of Claim 1 where X is selected from hydrogen and the group consisting of hydroxy, amino, -C(O)R<sub>3</sub>, and -C(O)OR<sub>3</sub>, where R<sub>3</sub> is selected from hydroxy, amino, C<sub>1-6</sub> alkyl optionally substituted with 1 to 5 halogen atoms, and aromatic and heteroaromatic groups substituted with 2 or 3 adjacent hydroxy groups and optionally substituted

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with 1 to 5 non-interfering substituents selected from halogen atoms and C<sub>1-6</sub> alkyl and C<sub>1-6</sub> alkoxy, each optionally substituted with 1 to 5 halogen atoms.

20. (Previously presented) The method of Claim 1 where Y is selected from the group consisting of hydrogen, hydroxy, C<sub>1-6</sub> alkoxy, and benzyloxy, where the phenyl group is optionally substituted with 1 to 3 substituents selected from halo and C<sub>1-6</sub> alkyl and C<sub>1-6</sub> alkoxy, each optionally substituted with 1 to 5 halogen atoms.

21. (Previously presented) The method of Claim 1 where the compound is a compound of formula A or formula B, or a pharmaceutically acceptable salt thereof.

22. (Previously presented) The method of Claim 21 where the compound is selected from the group consisting of dibromogallic acid, digallic acid, ethyl gallate, exifone, fisetin, gallacetophenone, gallamide, gallic acid,  $\alpha$ -glucogallin,  $\beta$ -glucogallin, 5-hydroxydopamine, and propyl gallate, and the pharmaceutically acceptable salts thereof.

23. (Previously presented) The method of Claim 1 where the compound is a compound of formula C or a pharmaceutically acceptable salt thereof.

24. (Previously presented) The method of Claim 23 where the compound is selected from the group consisting of myricetin and quercetin, and the pharmaceutically acceptable salts thereof.

25. (Previously presented) The method of Claim 1 where the compound is a compound of formula D or a pharmaceutically acceptable salt thereof.

26. (Previously presented) The method of Claim 25 where the compound is ellagic acid or a pharmaceutically acceptable salt thereof.

27. (Previously presented) The method of Claim 1 where the compound is a compound of formula E or a pharmaceutically acceptable salt thereof.

28. (Previously presented) The method of Claim 27 where the compound is selected from the group consisting of catechin, epicatechin, gallocatechin, epigallocatechin, and their gallate esters, and the pharmaceutically acceptable salts thereof.

29. (Previously presented) The method of Claim 1 where the active ingredient is selected from group of compounds consisting of acacetin, actinorhodine, alizarin, alizarin blue, alizarin orange, alizarinsulfonic acid, alkannin, anthragallol, anthralin, anthrarobin, antharufin, apigenin, apigetrin, apiose, baicalein, baptigenin, 1,2,4-benzenetriol, bostrycoidin, carbidopa, carminic acid, carubicin, cellobiose, centaurein, chloranilic acid, chondrosine, chromotrope 2B,

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chromotropic acid, chrysamminic acid, chrysarobin, chrysin, chrysophanic acid, cichoriin, citrazinic acid, citromycetin, collinomycin, curvularin, cyanidin, cyanidin 3-glucoside, cyanidin 3-rhamnoglucoside, cyanidin 3,5-diglucoside, cyanidin 3-sophoroside, daphnetin, datiscetin, daunorubicin, delphinidin, deoxyepinephrine, diosmetin, diosmin, dioxethedrine, dopa, dopamine, doxorubicin, droxidopa, echinochrome A, embelin, emodin, ergoflavin, eriodictyol, esculetin, fenoldopam, fomecin A, fomecin B, fraxetin, fraxin, fredericamycin A, fumigatin, fusarubin, fuscine, fustin, galangin, gallein, gallocyanine, gardenin A, gardenin B, gardenin C, gardenin D, gardenin E, genistein, gentisin, granaticin, guamecycline, hematein, hydroxysophorobioside, hydroxysophoricoside, icariin, isoquercitrin, kaempferol, kermesic acid, laccaic acid A, laccaic acid B, laccaic acid C, laccaic acid D, leucocyanidin, luteolin, maclurin, menogaril, methylenedigallic acid, morin, oosporein, phenicin, phloroglucide, puberulic acid, puberulonic acid, purpurin, purpurogallin, pyrocatechol, quercetagerin, quercimritrin, quinalizarin, quinic acid, resistomycin, rhamnetin, rhein, rhodizonic acid, rhodomycin A, rhodomycin B, robinin, ruberythric acid, rufigallol, rutin, scutellarein, tannic acid, tetroquinone, tiron, troxerutin, and tunichrome B1, and the pharmaceutically acceptable salts thereof.

30. (Previously presented) The method of Claim 1 where the compound is selected from 1,2,4-benzenetriol, ellagic acid, ethyl gallate, exifone, gallamide, gallic acid, 5-hydroxydopamine, myricetin, phloroglucide, propyl gallate, quercetin, quinic acid, and tannic acid, and the pharmaceutically acceptable salts thereof.